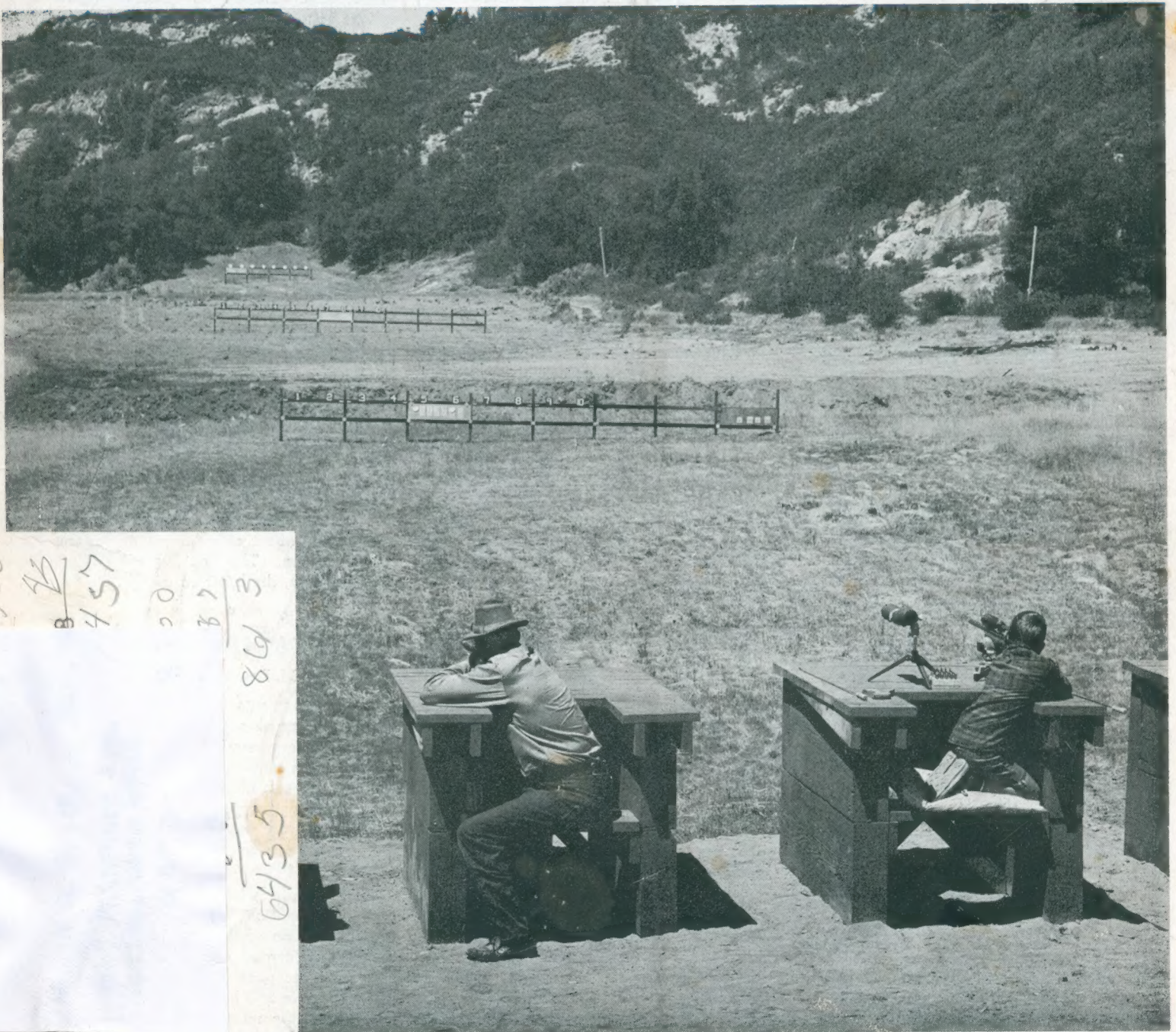


Precision SHOOTING

MAY 1966

Vol. 11, No. 1

40 cents



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6435

a magazine for Shooters by Shooters

Precision SHOOTING

PUBLISHED MONTHLY BY PRECISION SHOOTING, INC.

Editorial and business office at
Lyndonville, Vermont 05851.

Editor—P. H. Teachout
President—Robert F. Stinehour
Vice-President—Dermot Reilly
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Subscription rates:—To the U. S., Canada and Mexico, 1 year \$4.50, 2 years \$8.00. All other countries \$1.00 per year additional. Change of address requires 30 days' notice.

Place of Publication—Cowles Press, Inc., St. Johnsbury, Vt. Second-class postage paid at St. Johnsbury, Vt.

COVER PHOTO

Part of the firing line and the bench rest range of the Bonny Doon Gun Club at Boulder Creek, California. The ranges are 100 yards, 200 yards and 300 meters. The detail of the bench construction is quite clearly indicated in this photo.

See photo and description of this complete range elsewhere in this issue. These photos were made in 1965 and further improvements of the range have been made since that time.

OPPORTUNITY TO AIR VIEWS

Radio Station WLVP 102.3 on the FM dial located in Franklin, N. J. conducts an "open mike" program Monday through Saturday, starting after the 7:30 P. M. news and ending at 8:30 P. M.

The program opens and closes with the march "The Flag is Riding High." The topics discussed are vital, to patriotic citizens, including the Communist conspiracy, The John Birch Society, Foreign Policy, United Nations, etc. Often the subject of Gun Registration is mentioned on "open mike," few gun owners call in. WLVP will air your views with a signal covering an area 116 miles in diameter and is received as far south as Tom's River with an outside antenna. To participate, tune in the station, if you wish phone (Area Code 201) 827-6500 or 827-6566, let phone ring until it is answered then you will be on the air.

Some callers furnish most enlightening information in addition to that supplied by the station personnel. This is a program in the public interest and it is obvious more gun owners should be taking part.

Frank Evenden

(Editor's comment: Radio stations in other areas conduct similar local programs and they usually have a good sized listening and participating audience. They not only permit "airing views" on legislation but are an opportunity to make shooting better known in the local community.)

I AGREE WITH PHIL

Phil Teachout, That Is Or Ignition Is A Tricky Thing

By Ed Yard

PAGE TWO of our April 1966 Precision SHOOTING carries a note by our editor, Phil Teachout, relating to the shooting results of powder placement in a cartridge case when fired. We might more accurately say that he reports what he finds when a cartridge or the gun in which it is fired are handled in a stated manner just before firing. It is reasonable to assume, and is accepted, that such procedures cause a disposition of the powder that is uniform.

Anyone interested in internal ballistics should read the first paragraph of Phil's remarks. I am not repeating his words because you should make your own assessment. The rest of Phil's text fits in a probable way to what we wish to pursue here about primers and ignition.

The nature of ignition of smokeless powder charges is a much neglected topic. I do not mean that nothing is said about primers, their composition and characteristics, or their effects. I do mean to point out that just how a primer gets its job done is not clearly described in anything we read. And a probable reason is the lack of understanding among those who try to describe the primers.

The nitrocellulose compositions we use for handloads are about as ignitable as house paint. The cap to touch them off is a far cry from the flint spark that flashed black powder. It is a powerful energy source that engulfs the entire powder mass in a wave of flame and energy. Nothing less than this complete immersion of each granule in a block of flame will suffice to put a smokeless load on its way. The idea that a spark entering the cartridge, flickering through the powder grains will set them off is false. A minor version of the blasting cap is needed to do the job.

The modern primer for smokeless powder handloads dumps a large dose of energy into the cartridge. This causes a high pressure. Pressure is accompanied by temperature. The amount of energy and the degree of temperature are such that each grain of powder is set afire on all surfaces. Proper load performance demands this. Should any circumstance reduce this sort of ignition, performance should suffer. If the powder were ignited so that it got to burning gradually and over some period of time only a fraction of its energy could be liberated. This would be a squib load.

NOW TAKEN IN THIS LIGHT What Phil Teachout says makes some real sense. So you load a light charge, which Phil puts at 15 grains in a .30-'06 case, and wish to set it all off at top efficiency. Do you dump it against the cartridge base? This thought is that being near the primer the powder will be better lighted. If the mechanism is as we stated, then by putting the charge near the flash nothing much is

accomplished. The whole cartridge case will be put under pressure. The area near the base cannot benefit.

On the other end, powder placed against the bullet base, can be penetrated, dispersed to the rear and permeated by the flash. There is some evidence that charges so placed do ignite better or do burn faster, though the effect is small.

Phil is doubting that a small powder charge will do better when it is settled to the back of the case on top of the primer. But just so soon as you tip the rifle to a horizontal ready for firing, then the propellant settles along the bottom of the case. The less filled the case, the more certain it is that the charge will do this. Such a powder charge is less, not more accessible to the primer flash. There is no reason to think it will be better ignited. The idea that primers produce a powerful flash that saturates the cartridge case, and which surrounds each grain of powder in a flood of flame would mean that placement of powder in the case would have small effect on ignition.

Tests with powder placed variously in the case show some, but not much, difference in velocity. And it is probable that where any appreciable change is noted for a difference of charge position that a more powerful primer would have reduced the variance. This simply supports what Phil says. There is ample evidence to support his case.

We should remember that the energy imparted to a bullet is derived from the powder that propels it. The effective burning of this charge determines the efficiency of the load. We should question whether our charges are ever completely burned. The actual extent of burning does control bullet energy. And so, for powder position in the case, either before firing or at the moment of ignition, to affect load performance it must also affect either speed of burning or its duration. The first has more effect upon pressure, the latter on energy.

LIGHT LOAD POWDER POSITION

Dave M. Lewis, Seattle, Wash.

Your comments in the April Precision Shooting concerning powder position in the case versus accuracy are very interesting. I have done a considerable amount of experimenting along this line. My experience has been the same as yours. Best accuracy is with the powder positioned at the base of the bullet, not over the primer at the back of the case.

Specifically, while working up a light cast bullet load for my .243 Win. I tried random position of the powder, positioning the powder forward at the bullet base and back over the primer. With 12 grains of 4759, 85 grain 243 bullet (Lyman mould, I don't recall the number offhand) my best 100 yard 5 shot groups with random positioning (that is, just put the round in the chamber and shoot it) were running 3.5" to 5.5". Tilting the rifle up prior to firing

PRECISION SHOOTING

each round reduced average group size to 2¾". With the powder positioned at the bullet base the average group size was further reduced to 2" with the extremes being 1.5" to 2.5".

Reasoning that the force of the primer was scattering the powder within the case, resulting in erratic ignition, I decided to hold the powder in place at the rear of the case using kapok. This would prevent the scattering or reduce it. As it turned out the use of kapok gave groups almost as good as pre-positioning the powder at the base of the bullet. This had the very definite advantage of not having to give special handling to these loads.

I have verified the above results with kapok in other loads and other calibers including .222 Rem., .30-40 Krag, 30-06 and .375 Magnum. No less than 20 five shot groups of each configuration were fired. As a result, whenever using light loads with either cast or jacketed bullets I use a kapok filler.

I have not found the amount of kapok used critical except that a minimum must be used which is enough to hold the powder in place. In a .243 Win. case this is about ½ grain. With a large amount, after firing it will "snow" in front of the firing line for a few moments.

TOURNAMENT CIRCUIT

MODESTO, CALIFORNIA, MATCHES

On February 26 and 27 the Modesto Rifle Club held an NRA Open Rifle Sectional gallery rifle tournament. There were 62 shooters present with some coming from as far as Reno, Nevada, and Gonzales, California.

There were three 20x prone scores, by Louis Mlcoch of Marysville, William Covington of Sacramento and Frank Duffy of Novato—Duffy being declared the winner by drawing. In the sitting match things were a little close too, there being three 200-17x scores. After checking who dropped what and where, Harold Chaner of Ceres was winner, 2nd went to Leonard Brock of Windsor, and his buddy Vic Zimin was 3rd. In kneeling position Vic Zimin came through pretty good with a 199 to win. Clifford Block of Reno, Nevada was 2nd with 198. On his heels was a junior from Mateo, Tom Whitaker, with 198.

In standing it was a pretty close match with Clifford Block winning with a 191. Close behind him Vic Zimin and Robert Gustin, Jr. (also a junior shooter) with 190 each. It was winning the standing match which gave Clifford Block the winning 789 score for the sectional aggregate. In the Master class Vic Zimin took honors with 789, followed by junior shooters Tom Whitaker with 783 and Bob Gustin Jr. with 782.

Ralph Weida of Sacramento was high Expert with 766, Wesley Peterson of Modesto

to was high Sharpshooter with 777, and a Modesto junior, Jim Beard, was high Marksman with 760.

The Modesto Rifle Club team of Duane Jenner, Don Peterson, Grady Jordon and Ham Burch won the team match with a 1542.

March 12 and 13 was the time for Modesto's 8th Annual Central California Championships. There were 94 shooters which put forth the effort to attend and try to win honors.

To start things off a Sharpshooter won the drawing for breaking his tie of 20x prone, Charles Ackerman of Sacramento. Other 20x prone scores were by Louis Mlcoch of Marysville and Vic Zimin of Santa Rosa.

In sitting, Gary Anderson from San Anselmo came through with 20x to win. Following close were Leonard Brock of Windsor and Tom Whitaker of San Mateo with 19x each.

In kneeling things got a little tougher, but Gary wound up on top with 200-17x. Second and third were Palo Alto shooter Alan Bates with 200-16x and Gerald Maloney with 199. Winning the standing match was Gary with 198. Second went to Duane Jenner of Modesto with 196. Arlan Amoral of Moraga was third with 193.

Gary Anderson won the tournament with a 798 (which ties the existing record for Reserve). This was a 3 pound trigger weighed match. His close competitor for several tournaments was Duane Jenner with 792. Third was Tom Whitaker with 791.

IT'S OUT!

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SHILEN RIFLES

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High Expert was John Druce of Fairfield with 771, high Sharpshooter Wesley Peterson of Modesto with 772 and high Marksman Otto Zimmerman of Modesto with 738.

Forty-eight shooters (11 teams and 4 individuals) competed in the NRA Junior Gallery rifle Sectional tournament at Modesto on March 27th. High individual scorers were Robert Gustin, Jr. from Sacramento with 387x400, John Christy, Greenbrae, 385, and Richard Bundschud, Palo Alto, 373.

The Marin County Sheriff's Junior Rifle Club #1 team of John Christy 384, Robert Gustin, Jr. 380, Robert Boyd 370 and Brock Wagstaff 351, won the team match with a 1485 total.

BROOKLYN, NEW YORK

Joseph Barnes, Jr. of Branchville, New Jersey made a clean-sweep win at the Metropolitan Rifle Club's Double Individual Match on March 27th with an outstanding score of 800-71x for the two 40 shot prone matches at 100 yards indoors. He won the "A" match with 400-35x and the "B" match with 400-36x.

Eleven shot 400 possible scores in "A" match. Following Barnes were R. Triggs 34x, F. Boyd 33x, R. Walton 33x and R. Ranker 32x.

Eleven also shot 400 scores in "B" match. Second through 5th were A. Rosenblatt 35x, F. Boyd 35x, S. Tekulsky 34x and L. Moore 33x.

Six fired 800 possible two-match aggregate score. They were J. Barnes, Jr. 71x, F.

Turn to page 4



A LIGHT, STURDY SHOOTING BENCH

John B. Sweany has designed and built a relatively light weight, sturdy and inexpensive shooting bench which is herewith illustrated and described.

The two photos quite clearly illustrate the features of the construction. All wood-to-wood contacts are both nailed and glued. The combined gluing and nailing provides the strength and steadiness which is a feature of the light weight bench. The weight of the bench does not exceed approximately 60 pounds, making it easy and convenient to move on and off firing lines that are used for

other types of shooting.

The bench top is $\frac{3}{4}$ inch plywood. One sheet of plywood (4'X8') will make two bench tops. A piece of 2"X4", edgewise, extending underside center the length of the bench top, both nailed and glued to the top, provides the "backbone" of the bench. The bench legs are 2"X4" lumber. The method of attaching and bracing the legs is quite clearly illustrated. Here, again, all wood-to-wood contacts are BOTH nailed and glued. Any white glue, such as "Elmer's", is satisfactory for the purpose.

Note that the pieces of plywood cut out at the rear of the bench top are used for partial bracing of the front legs. The cross braces on the front legs are 1"X4" lumber.

The diagonal braces from low on the front legs to the bench "backbone" are electrical conduit pipe, flattened on the ends, "hammered flat" and drilled for $\frac{1}{4}$ inch lag screws, which are used to fasten the braces to the 2"X4" lumber.

If this type of bench will be used on any hard floor surface some non-skid material should be fastened to the bottom (feet) of the legs. If the benches will be set on the ground, this is not necessary.

Since for Hunter-Rifle program shooting the provision for hanging targets may be very simple and inexpensive, with benches such as these, any club or group can get set up for conducting Hunter-Rifle matches at a relatively small cost. If, by chance, this type of shooting might not prove popular in a community, there would not be any heavy money loss from having tried it.

P. H. T.

TOURNAMENT CIRCUIT

Boyd 68x, A. Rosenblatt 66x, S. Tekulsky 63x, J. Maher 60x and C. Johnson 50x.

MIAMI, FLORIDA

The historic Annual Black Hawk Open, sponsored by the BLACK HAWK RIFLE CLUB saw its 25th anniversary March 27th at the Trail Glades Ranges in Miami, Florida. This old timers match usually fired in Illinois moved to Florida this past year and the new officers are injecting renewed vigor into the old Club with this its first fired match. March winds and an unusual chill during the early hours of the match kept scores down and T. C. Rossman of Hollywood started the campaign to victory with a 397-27 in the 50 metre Iron. Close on his heels were M. Washington and Bill Schweitzer with 397-25 and 396-23. Barbara Hampson, a rising young Junior Expert fired a 398-21 to keep the Masters worried. The subsequent matches proved to be a tug of war amongst the three leaders, Washington, Schweitzer and Gene Stamm who moved into contention with his 397-21 in the 100 yard iron. These two hard shooting Black Hawks kept old veteran Schweitzer on his toes all day and when the final bulletin was posted Schweitzer and Washington were tied for the Aggregate. Schweitzer's consistent hard holding gave him the edge by 27 xs and he took home the BLACK HAWK TROPHY. Gene Stamm captured the beautiful KEN WATERS MEMORIAL TROPHY for the 100 yard aggregate with his 794-49. Schweitzer again claimed the State Association Aggregate with 795-62. Dr. Lawson Johnson, shooting his first match as expert took expert honors with a creditable 1578-86. Barbara Hampson gathered both High Junior and High Lady trailing Johnson by only 4 points. Otto Morgenroth was high Sharpshooter and Walt Stephan winning Marksman.

PRECISION SHOOTING

Random Shots

By Betty Summerall Duncan

Continued from April

Second in the 6400 Aggregate was **Captain Dennis Dingman**, also of the U. S. Army Marksmanship Training Unit, scoring 6374-452X. M/Sgt. **William E. Krilling** placed third with 6370-454X; followed by Wildcat defending champion **Herb Hollister**, of Boulder, Colorado, who posted a 6369-460X. Former National Champion **John Moschkau**, of Waterloo, Iowa, who holds the Open Record for the 6400 point aggregate, placed 5th with 6366-425X. Completing the top twelve were Capt. **John Foster**—6365-447X; W/O **David Boyd**, USMC—6364-439X; **Thomas H. Guerin**—6363-439X; A/1 **Allan H. Hannon**, USAF—6362-411X; **Robert E. Boydston**, president, Los Angeles Rifle & Revolver Club—6360-408X; Lt. **James Meger**—6357-411X; and **Karl Kenyon**, Ely, Nevada—6355-426X.

1964 National Woman Champion, **Inez Sargent** of Houston, retained her Wildcat Ladies' title with a creditable 6350-419X. She fired her new Anschutz in all but one match with the Eley 10X ammo. The rifle, weighing barely over 10 lbs. minus sights, is considered acceptable for Standard Rifle competition, which will be a part of the 1966 World Championships . . . A picture of what the well-dressed shooter should wear in thirty-ish weather, Inez was comfortable in a 2-piece foul-weather outfit. Designed for warmth, it is equally practical for men and women and is worn over other clothing but under the shooting coat. She found it at Oshman's in Houston . . . Her blue earmuffs provided two-fold protection.

Expert winners were **Ed Pfeiffer**—6337-368X; **Anita True**—6315-368X; and **Lee Zuendel**—6311-325X. **William H. Christoph**, Yuma, Ariz., dominated the Sharpshooter class by a wide margin—6298-333X, as Marksman honors went to **Lynnford P. Linke**, Luke AFB, Arizona, for his 6230-257X.

Random Observations—

Al Freeland, at 65, is still going strong—(No rocking chair for him either). No one would ever guess that only a few weeks ago he was in the hospital for surgery. He has lost about 45 pounds and looks wonderfully well. It was a most pleasant experience shooting 2 points down from him and next to Ted during the four days. Al just missed placing in the roughest match, the 100-yd. on Friday, by an X or 2, as he shot a 397 . . . He is quite enthusiastic about the Eley 10-X ammunition. The Freeland station wagon was literally loaded down with it when they arrived, but—it didn't last long. It appears that the enthusiasm is contagious. **Henry Benson** didn't shoot anything else. Among others who shot the 10X ammo were **Herb Hollister**, **John Moschkau**, **Augie Westergaard**, **Tom Guerin**, **John Hughes**, **Raymond Sargent**, and **Harlon Carter**, who did extremely well for one who is too busy to practice—in particular, his 1591

with irons on Thursday . . . Freeland has just shipped 100,000 rounds of the 10X to USA MTU at Ft. Benning. (I hope that it isn't supposed to be a secret.) . . .

Business is booming at the Atkinson-Marquart barrel factory. **Bill Atkinson** was only able to shoot on Saturday, then had to rush back to Prescott. We missed him—he livens things up . . . An attention-getter is his 20-inch barrel. It shoots, too! . . .

George Stidworthy's personalized squadding tickets were clever. For example: **Harlon Carter** was "El Supremo"; mine read "The Press"; some wouldn't be understood without a background story; others weren't talking (about their labels) . . .

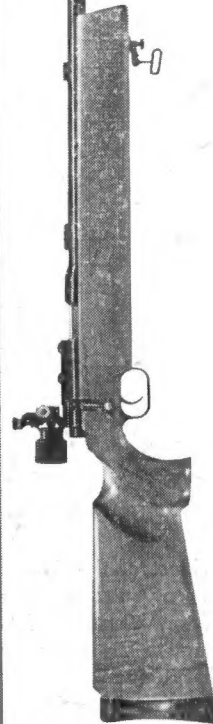
The Duncan System (Don and I originated it) of changing the fired target of the competitor to one's right, eliminating the touching of a competitor's own fired target, continues to be used by the Wildcats. Most competitors are happy with it. The only objection is from ones with, shall we say, "shady ideas"? . . .

Phoenix topped them all this time with their "shooting holiday attractions." There was a 2-day prone tournament at the South Mountain range the previous week-end. The big news when we arrived for the Wildcats shoot was that **Henry Benson** had stolen all the glory there—and, had tied the **National Any Sight Aggregate Record!!!** (Now I'm glad we struggled for three long, hard years in behalf of **Jimmy Williams' 100-yd. Any Record** eliminating the use of the Creedmoor System in determining National records, which resulted in Rule 17.6, providing for co-holders of National Records). . . . **Hank** wasn't shooting his White Rifle, or his Blue Rifle, but an entirely different one. He bought **Frank Dutra's** (left-handed) **Morgan-Johnson**, and turned it over to his good friend, **Karl Kenyon**. **Kenyon** barreled it with a new **Douglas**, stocked it, bedded it, worked it all over—then, endowed it with his special magical qualities. From then on, it was up to **Henry**. Equipped with an adequate supply of 10X ammo, **Henry** did it justice! As soon as **John Hughes** sends the bulletin, we'll tell you about that shoot. . . . Following the Wildcats extravaganza, there was something special for the International set—a preliminary tryout for the World Championships over the 300-meter and 50-meter courses, sponsored by the Arizona State Assoc.

We are indebted to **Ben Avery**, Outdoor Editor of the **Arizona Republic** and NRA Executive Committeeman for his liaison work and photos; to **Frank Gianelli**, **Arizona Republic Sports**, for his terrific action photos and two excellent stories. We sincerely hope that it wasn't on Friday at the range that you contracted the flu, **Frank**. And, I really missed you on Sunday night when I had the final results! It is always a pleasure to work with **Frank Gianelli**. He has a rare, and refreshing, understanding of the shooting game. . . . I should like to further express our gratitude to **Bill Lewis**

Turn page

New I.S.U. Standard Rifle from Anschutz



How can a rifle designed especially for international matches be just what U.S. smallbore shooters are looking for? Easy. The Anschutz people built a position rifle to meet the new International Shooting Union "Standard" classification. What they came up with happens to be ideal in weight and stock design for U.S. match requirements.

It's built on the same match 54 action that was used by 7 out of 10 of the smallbore shooters in the Tokyo Olympics (and all the medal winners).

The 1408 weighs about 10 pounds, easily meets the I.S.U. limit of 5 kilograms with sights. The single stage trigger, adjustable for weight of pull, creep and backlash, is set for 500 grams (1.1 lbs.). A replacement spring is included to convert to a 3 pound pull for U.S. matches.

The 7/8" diameter, 26" barrel is precision rifled and hand-lapped for high precision. The French walnut stock has adjustable butt plate, raised cheek-piece, contoured pistol-grip and a deep fore-end for position shooting. Full length swivel rail and scope blocks. **\$155.** (Sights extra.) Left-hand stock, **\$167.**

Prices subject to change. For free full-color catalog, write: Savage Arms, Westfield 129, Mass. 01085. (A Division of Emhart Corporation, Savage, Anschutz and the Indian head Reg. U. S. Pat. Off.)

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of KTAR-TV. We appreciate your cooperation, Bill, and your wonderful coverage of our tournament.

With Franklin Orth, Frank Wyman, Bob Joerg, etc., from Headquarters . . . NRA President Carter and Vice-President Harold W. Glassen . . . Alvin Badeaux, Admiral Morton C. Mumma, John Schooley, and George Whittington from the Executive Council . . . Ben Avery, Dr. Alonzo Garcelon, and Raymond Sargent of the Executive Committee . . . Tod Sloan, Western Field Representative, etc., all in Phoenix, it was rumored that some important conferences were held. It is further rumored that one of the important matters concerned the following, March Rifleman, page 17, taken from the very important Little Report on the DCM Program, under the portion captioned "Public Relations Potential" —: "While the successful shooters and teams in the National Matches acquire considerable prestige in the 'shooting fraternity,' potential public relations advantages are dissipated because of relatively little nationwide coverage of the National Matches in the news media." . . . As you can imagine, I can speak fluently on this subject.

We enjoyed seeing Dr. Al Garcelon, and Ed Reiten, NRA Director from North Dakota, who was a competitor.

Returning to the subject of the Arthur D. Little Report, may I urge you to read the excerpts from it, the Editorial, and the letter from the Army sergeant in Vietnam very carefully in your March Rifleman.

I am happy to report to you that I sponsored a resolution using this positive approach which was passed unanimously by the State Conference of the California State Society, Daughters of the American Revolution on March 11th. My resolution, which I believe that you will find of interest, follows:

PROMOTION OF RIFLE PRACTICE

WHEREAS, the National Board for the Promotion of Rifle Practice, organized under the Department of the Army by Act of Congress, is successfully fulfilling its assigned mission of training men of military age in the safe and efficient use of military-type rifles; and

WHEREAS, The National Rifle Association of America is working in cooperation with said National Board for the Promotion of Rifle Practice by organizing adult and junior clubs, furnishing trained instructors, conducting marksmanship tournaments throughout the country; and

WHEREAS, actual experience has proven that men with previous marksmanship training are more capable in combat, thus improving their chances for survival; and

WHEREAS, The United States is engaged in armed conflict in Vietnam for an indefinite period, where guerilla-type warfare in a dense jungle requires that the individual soldier depend upon his personal weapon for survival and victory; therefore be it

RESOLVED, that the California State Society, Daughters of the American Revolution, endorse the marks-



Prone Position

manship program of the (1) National Board for the Promotion of Rifle Practice and the (2) National Rifle Association of America in working together to promote more intelligent use of firearms and to train American youth and men of military age in order that they may better serve their country in combat.

Action is becoming fierce in Vietnam. A burst of 130 mortar rounds was dropped on the camp where Captain Pres Kendall was situated on a certain Saturday night, when a North Slope Battalion hit them—3 rifle, 1 weapons, and a Headquarters Company. It was at 12:45 a. m., and it hit Kendall's Company hard. Eleven people were hit with shrapnel while running to bunkers and holes. Two others didn't make it. They appeared to have been shot several times with double 0 buckshot. Pres had two letters of condolence to write . . . He himself was hit by secondary missiles—that is, rocks and splinters—in the hand and leg. As he put it—: "No big thing." Let's hope that it continues to be, "no big thing."

BERDAN CARTRIDGES AND CENTRAL FLASH HOLES

By Fred W. Hallberg

In my March article in this magazine, I referred briefly to a Berdan primed Norwegian cartridge with a flash hole running right through the center of the Berdan anvil. To me, that looked like a good idea because the anvil is formed simultaneously with the pocketing operation and so eliminates the need to make and seat the separate anvil that is part of the American primer. Not only would such a Berdan anvil save considerable manufacturing cost but it would also simplify, improve reliability, and reduce the cost of inspection.

I discussed this idea with Mr. Nils Kvale, Director of Sales of Norma. Mr. Kvale is one of those unusual sales representatives who is thoroughly versed in all facets of small arms commercial ballistic procedures as well as cartridge manufacturing methods. Mr. Kvale told me that the Norwegians first brought out this case sometime back in the 1920's. They did it to facilitate reloading and they continued to experiment with it for many years. But one insurmountable obstacle finally caused them to drop the project. They found that each successive use of the case caused a measurable change in the size and shape of the an-



Capt. Lones Wigger's prone position.

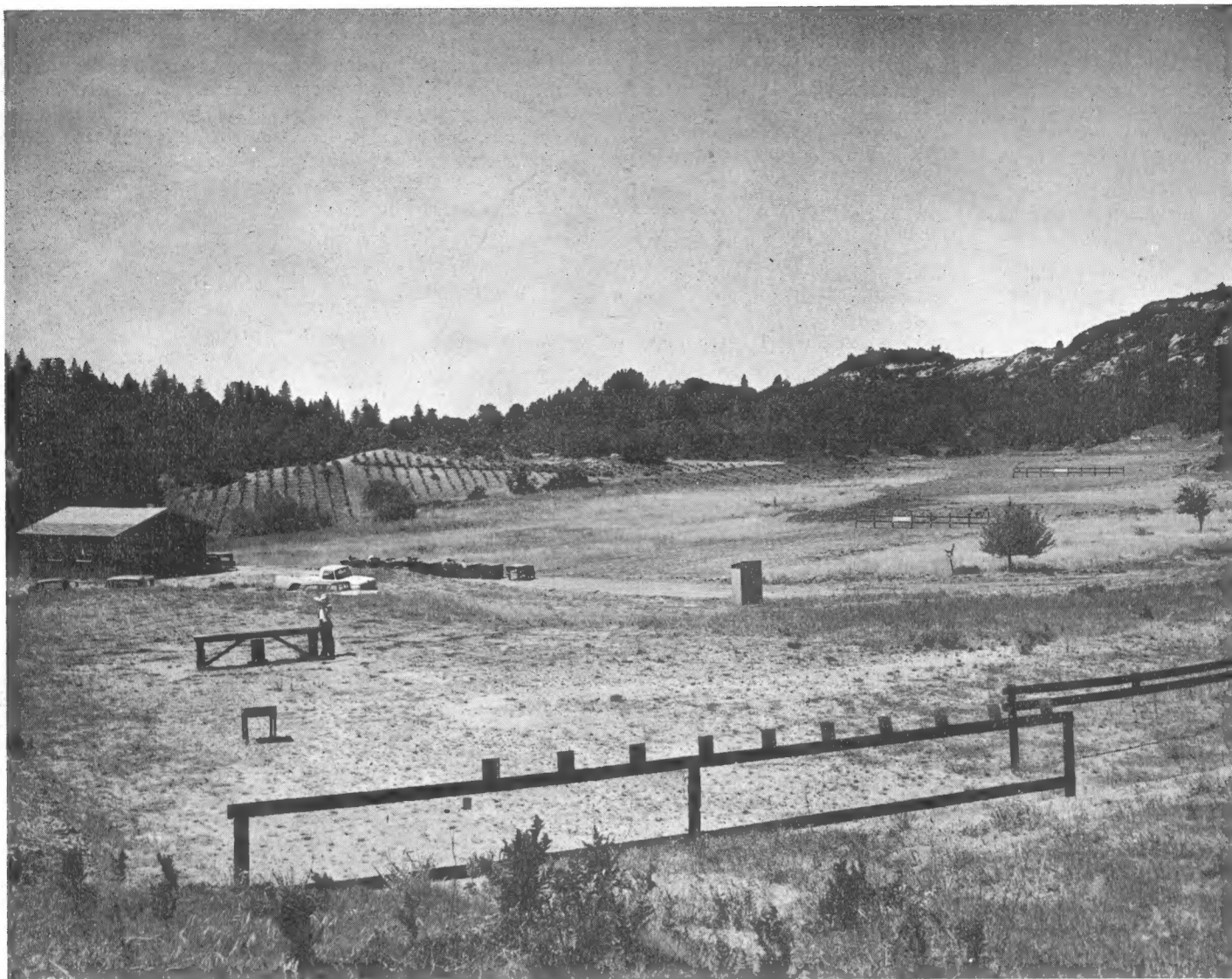
vil which, in turn, caused changes in intensity of ignition and difference in velocity and pressure. The American type anvil is constant because it is used once only and is always new and fresh. Therefore the American type anvil and primer can produce more uniform results in cases that are many times reused.

Mr. Kvale did not refer to the kind of damage to the Berdan anvil that is sometimes created during the primer pry-out operation. Such damage can and does occur frequently. He was thinking only of the repeated blow of the firing pin and the gradual burning away of the anvil surface. This feature renders the Berdan type case considerably less durable than the American type. This is something for people who reload Berdan cases to think about.

I also asked Mr. Kvale how his factory ejected Berdan primers during a commercial reloading operation. He said they use the water pressure system and, while it is a dirty operation and splashes water all over the place, it is the most effective method. Apparently, water is first dropped into the case at the beginning of the "taper and plug" operation followed immediately by a plunger that creates the necessary pressure. As he was telling me this, I was immediately conjuring up visions of a completely submerged operation that would not only eliminate splashing but would also simplify the mechanics of the operation. Anyway, it was fun designing it.

Turn to page 8

PRECISION SHOOTING



EAGLE ROCK RANGE of BONNY DOON GUN CLUB at Boulder Creek, California

The photo above shows the complete range facilities of the Bonny Doon Gun Club's Eagle Rock Range. All in the flat being the range and on back this way (toward the viewer) out of the picture, they can climb to where they can get 600 yards. The range house is far left and then the firing line. No, that's a shotgun house there in that very small building a little right of the center. Back this way are the pistol frames. The 100 and 200 yard and 300 meter target frames are seen running toward the right, the 300 meter being just below the tree line. Behind the Vinyard, LOCKHEED has a 4000 acre missile testing ground. From over the Vinyard Hill and 180 degrees to the left in the picture, the mountains are full of famous Redwoods and six miles down to the edge of the Pacific Ocean.

Geophysically, this area could be the sunken results of some volcano, long dead. The elevation is 2600 feet and many areas around the grounds are pleasant picnic places.

This range has one problem: It is not noticeable in the picture but there is a trail coming from the 200 yard range that branches, and if you are not watching close, you may take the trail to your right. This might be disastrous because it leads directly over the top of the Vinyard Hill to a WINERY just out of sight. In there, the BEST wine in the State of California is made. Now check; DESIRABLE ——— UNDESIRABLE ———.

When you leave this range, after a firm and friendly hand-shake with the members of this Club, there is nothing else can be said except that you are leaving the finest bunch of people, by chance thrown together, that you have ever met. I know because I have been there.

This range has room to be made into the finest in California for all types of shooting, and it may be that, in not too long to come.

John B. Sweany

CALIFORNIA HUNTER-RIFLE MATCH

On March 13th the Bonny Doon Gun Club held its first Hunter-Rifle match at Boulder Creek, Calif. (near Santa Cruz) with 28 shooters firing 32 guns to fill 4 relays on the 8 bench firing line. (The club plans to add more benches before its shoot on May 1st and to have a 16 bench covered firing line before the end of the 1966 season.)

The over-all match winner was Bonnie Pullens who scored 236 of a possible 250 points, shooting a 6mm/250 in Douglas barrel with Sierra bullets and H380 powder. Next in over-all ranking were: Bob Lowthian with 234 (6mm/250, Douglas, Sierra, H380); Carl Taylor 233 score (6mm/250, Hart, Speer, H380); Dave McLennan 230 (6mm/250, Hart, Speer, H380).

In all, 13 of the 32 rifles were chambered for that 6mm/250 cartridge, 7 of them in Douglas barrels and 6 in Hart barrels. All 13 used H380 powder.

Twelve of the thirty-two rifles were fired with iron sights. High with the iron sights was Jerry Pullens, scoring 212, shooting one of the 6mm/250's in Douglas bar-

Turn page

rel with Sierra bullets. Second was Don Hill with 205 (30/06, Springfield, Sierra, 4895); third, Sara Sorensen, 198 (30/06, Springfield, Sierra, HiVel 2), and fourth, Carlos Pedrola, 194 (.308, (?), Hornady, 4895).

The match was fired under the California Hunter Rifle rules, essentially as published in the April issue, pages 11 and 12.

A MICHIGAN PROGRAM FOR HUNTER-RIFLE

WINTER RIFLE SHOOTS 1966

Sponsored by: The Chippewa County Shooting Association.

Location: The Kincheloe A. F. B. Small Arms Range. The firing line is enclosed and heated. Shooting will be done through ports in the side of the building at 100 yards.

Dates: Jan. 16, Feb. 6, Feb. 27, Mar. 20 and Apr. 3. Time, 11 AM to 5 PM.

Reentries: All matches but the team match may be reentered. If a shooter re-enters, only his highest score will count for awards.

MATCHES

(Matches #1 and #2 are for equipment somewhat similar to NBRSA Bench Rest Rifle and Light Varmint classes and are not applicable to Hunter Rifle. Ed.)

#3 Bolt Action Sporter: Ten shots for record on the 100 yard smallbore target, with rifles not less than 24 caliber, and not more than 4 power scope. Rifle may not weigh more than 9½ lbs.

#4 Slide, Lever and Auto rifles: Ten shots for score, same as match #3. Not less than 24 caliber, not more than 4 power (scope) and not more than 9½ (lbs. weight). Winchester M/88's may not shoot in this class. Because of their greater accuracy they must shoot in the Bolt Action class.

#5 Iron Sights Sporter: Five shots for score on the 100 yard smallbore target, with rifles not less than 24 caliber, and with iron sights. Front sight may be a bead or post. (Aperture front sights not allowed.) Rifle may not weigh more than 9 lbs.

#6 Team Match: (This is for teams of four or more shooters with four high adjusted scores to count for team score. A handicaps system is used for this match—bolt action class gun score to count for record and the other classes having a prescribed handicap added to their gun score, but never to exceed a "possible" gun score. Ed.)

Prize awards are of value of approximately 50% of the entry fees received, at these matches in the form of chickens, hams and turkeys. Trophy or medal awards are made to season winners.

EDITOR'S COMMENT

This method of classification is quite different than that used in the California

program. It is simple and understandable to potential participants not familiar with organized target shooting programs. It might be desirable for initial testing of this type of shooting. However, experience may prove the California system the better in the long run. This is a matter that reported experience of wide-spread testing could indicate. Differences could later be ironed out to provide an acceptable uniform program and rules for this type of competition.

RE: HUNTER-RIFLE COMPETITION

Following is a letter received from Don Tibbitts, Whitefish, Montana, raising a point regarding acceptable guns for Hunter-Rifle competition:

"Re: Tentative rules for Hunter Rifle competition. I think it is a bad mistake to limit Hunting rifle calibers to cases of 250/3000 Savage capacity. This will rule out many calibers that are real hunting rifles. If you want more hunters to compete, why rule out so many? I will list a few here; 35 Rem., 32 Rem., 30-30, 30 Rem., 32 Special, 25-35, 44 Ruger. And my 240 Remington International, plus many more guns that are used for hunting rifles.

"What I want to know is why do they bar the above calibers? Are they going to tell me a 30-30 is not a hunting rifle? That part of the proposed rules sounds like it was written up by some character who owns a over bore caliber gun and burns 97 grains of powdered Lignite. If you want more hunters to get interested in Hunter Rifle competition make the rules to include more hunters."

For successful promotion and "getting off the ground" a program for Hunter Rifle competition on a wide-spread scale, many letters of criticism AND constructive suggestions will be required and given consideration before any finalizing of a program should be attempted. Any universal rules for making Hunter Rifle a practical wide-spread program should be adopted ONLY after much trial testing in many areas and should be acceptable to a majority of the people who will be competing in the program.

Very greatly needed as a starter are rather detailed reports of trial shoots from many areas, including rules used. Precision Shooting will assist by publishing such reports and making them generally available for consideration. Let's have the trials and the reports and see what can come from it.

The rules published in April were intended as suggestions and a pattern which might be modified by any group making a trial of this type of competition. However, those rules have been tested and proven acceptable in matches over a period of more than two years at Richmond, California. They are the rules which will govern the official activity program now being sponsored by the California Rifle and Pistol Association.

The rules used for the matches in the Upper Peninsula of Michigan, with classification by gun type rather than by attained scores, could eliminate Don Tibbett's criticism and might be simpler and more desirable for starting trials. Those rules are published elsewhere in this issue. Classifying by equipment type might serve to broaden the field for improvement for all types of hunting rifles.

No one person can provide all the right answers to questions that will arise in the promotion of a Hunter Rifle competitive program. If such a program is to become a fact it should, in this writer's opinion, be by cooperative effort, at the grass-roots level, of people interested in developing a practical competitive rifle shooting program in a heretofore unexplored field.

P. H. T.

RE: HUNTER RIFLE RULES

John Sweany phoned yesterday (Apr. 21st) to comment on Don Tibbett's criticism regarding hunting cartridges not permitted in Hunter Rifle tentative rules. John pointed out that the rule specified "Case capacity at SHOULDER no less than 250/3000 Savage case at shoulder" and that with the possible exception of the 25/35 and .25 Remington (both now considered obsolete), all cartridges mentioned by Don ARE permitted by the Hunter Rifle rule.

I checked manuals for cartridge dimensions and load charges with 3031 powder (listed for all the cartridges) and find John to be correct. Maximum listed charges for the older cartridges are kept low because of the type of rifles they are generally fired in, and the charges of recommended powders do not fill the cases to capacity.

P. H. T.

Berdan Cartridges

In the above, I used the words "taper and plug." That is the name given to the factory operation that produces the final shape of the cartridge case. The cylindrical case is fed onto a horizontal revolving plate which is indexed to permit two dies to slide over and into the case to form the taper, shoulder, and neck. The plug acts both as sizer and support against inward pressure from the shaping die.

Now, why can't we use the water pressure system on our American cases and so forget all about centering the flash hole? I would suppose that the heavy primer crimp which we give our military cases would make it impractical. However, if the crimp could be lightened, the water system would certainly work.



RICHMOND ROD AND GUN CLUB

This aerial photo of the Richmond (California) Rod and Gun Club grounds is supplied by John B. Sweany. He comments on it thusly:

No pictures that I have ever seen can show this range up as it appears in life. Ninety acres of what you see there belong to the Club. This claims to be the only Club both above and below sea-level. Only about 17 acres are above but every acre is priced at \$1,000 an acre. This way, out of the picture toward the viewer, are extensive holdings belonging to commercial companies, big chemical companies and others with big acreage.

The rifle range is to the right of the long line of trees, planted a few years ago for beauty and wind break. This range goes to 200 yards. The pistol range is the long white building just past the rifle range, both 25 and 50 yards, one of the last words in improved pistol ranges. The big Club house is just inside the long county road where the two Range roads branch, one going to the rifle and pistol ranges, the center one going out to the shotgun and skeet ranges and the road around to the right goes to the yacht harbour. Out that small exit you can take your boat to the oceans

wild and wide. Trailer areas for parking and leaving are in several places. Lots of improvements are in the making and yet to come. The tide is out and its limits are to be seen, beyond the shore line.

This is a wealthy Club, much of the wealth being in the membership of about 1,000. Every few nights and all weekends there is much activity; meetings, dinners, dances and shoots, all for the members and their guests.

CALIFORNIA HUNTER-RIFLE MATCHES

The first Hunter Rifle match in the Los Angeles area was fired on the San Gabriel Valley Gun Club range in March, sponsored by the California Rifle and Pistol Association Bench Rest Committee, with 39 shooters competing. Listing of high ranking scorers (with equipment) and excerpts from sponsors' narrative report follow.

Hunter Class (scope sights): Winner, Chue Galban (Enfield action, .270 cal., 4895 powder, Sierra bullets) score 241 (2 targets scoring 47 and 3 scoring 49 each. Nick Moropulce (Rem., .244, 4895, Sierra) 233. Don McLellan (Rem., 6mm/250, H380, Speer) 229. George Collins (Sako, .243, 4895, Sierra) 226. Henry Dunbar (Win.,

270, HiVel, Sierra) 223. Pete Aspaturian (Win., 30/06, 4895, Sierra) 222. Twenty-six fired in this class.

Lady Class: (Four competing) Pat Aspaturian (Win., 30/06, 4895, Sierra) 211. Mary Lou Buckland (Springfield, 6.5/308, 4895, Sierra) 195.

Junior Class (3 competing): Steven Buckland (6.5/308, Springfield, 4895, Sierra) 212. Phillip Buckland (same as Steven) 202.

Iron Sights class (6 competing): Tom O'Brien (Win., 30/06, 4895, Sierra) 211. Jerry Buckland (30/06, Win., 4895, Sierra) 200.

(Excerpts from narrative) "This Hunter Rifle Match is the newest addition of the California Rifle and Pistol Association Bench Rest Committee's Hunter Rifle Program, which has been in existence in the North the past couple of years. We are sure the interest here in the Southland will grow as it has in the North.

" We are especially proud to have had as a competitor our present State Champion of this event, Don McLennan. He came all the way down from Concord and had some very valuable pointers for us. Of course after their turn at the bench,

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National Bench Rest Shooters Association, Inc.

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NBRSA MEMBERSHIP DUES:

Individual annual dues \$6.00 (includes magazine subscription for membership term). Associate member (wife or husband, son or daughter under 18 years of age, of member in good standing—no magazine) \$2.50. Life membership \$75.00. Annual club affiliation fee \$10.00.

1966 Bench Rest Matches

Eastern Region

Augusta, Ohio: July 16-17 Bench Rest Rifle and Heavy Varmint. Aug. 2-3-4-5, Bench Rest Rifle NATIONAL CHAMPIONSHIP. Reed's Run Rifle Range, Box 66, Augusta, Ohio 44607.

Easton, Ohio: May 14-15, Bench Rest Rifle and Heavy Varmint. Aug. 20-21, Bench Rest Rifle and Heavy Varmint. Chippewa Rifle Club, Nelson Berger, Sec'y, Marshallville, Ohio 44645.

Wapwallopen, Penna.: May 28-29, Bench Rest Rifle and Heavy Varmint. July 2-3, SPEER MATCH, Bench Rest Rifle and Heavy Varmint. Sept. 17-18, Bench Rest Rifle—Eastern Region Championship. Council Cup Rifle Range, Robert W. Hart, 332 Montgomery St., Nescopeck, Pa. 18635.

Canton, Ohio: June 4 and Aug. 13, 1 P. M. Saturday, Heavy Varmint only. Canton-McKinley Rifle Club, c/o R. H. Johnson, 3118 11th St. S. W., Canton, Ohio 44710.

Fassett, Penna.: June 11-12, July 9-10, Sept. 24-25 (Eastern Region Championship). All matches for Heavy Varmint, Light Varmint and Sporter. South Creek Rod & Gun Club, c/o Gerald Arnold, R. D. #2, Gillett, Pa. 16925.

Johnstown, New York: June 18-19, Bench Rest Rifle, Heavy Varmint and Sporter. Pine Tree Rifle Club, Inc., c/o Ralph Skakel, Treas., 210 Burton St., Johnstown, N. Y. 12095.

Midland, Texas: Heavy Varmint, Light Varmint and Sporter National Championships, Sept. 3-4-5.

Canton, Ohio: Registered Varmint Class matches June 4th and August 13th, 100 and 200 yards, day and evening. Non-registered club matches, bi-weekly, May to November. Write for programs, Canton-McKinley Rifle Club, c/o R. M. Johnson, 3118-11th St. S. W., Canton, Ohio.

GULF COAST REGION

Grand Prairie, Texas: Texas Bench Rest Ass'n Championships. May 28th, Bench Rest Rifle and May 29th, Heavy Varmint class. June 25th, Sporter class and June 26th Light Varmint class. Grand Prairie Gun Club, c/o A. G. Rogers, 3005 Monticello Drive, Irving, Texas 75060.

Abilene, Texas: Gulf Coast Regional Championships. July 15th, Sporter class; July 16th, Light Varmint class; July 17th, Heavy Varmint class. West Coast Sportsman Club, c/o John D. Richardson, 2660 Rountree, Abilene, Texas 79601.

Midland, Texas: NATIONAL VARMIN'T AND SPORTER CHAMPIONSHIPS. September 3rd, Sporter class. September 4th, Light Varmint class. September 5th, Heavy Varmint class. Permian Basin Rifle and Pistol Club, c/o C. B. David, Box 459, Midland, Texas 79701.

MID-CONTINENT REGION

Tulsa, Oklahoma: May 7 & 8—9 AM; June 18 & 19, Mid-Continent Regionals—9 AM; July 16—5 PM; Aug. 20—5 PM; Sept. 17—5 PM; All matches for all classes. Tulsa Bench Rest Rifle Club, c/o Ed Garrott, 7544 E. 27th, Tulsa, Okla. 74129.

Wichita, Kansas: July 2 and 3, Kansas State Matches, Varmint and Sporter afternoons and Bench Rest Rifle, unrestricted, nights; Oct. 1—4:30 PM, Bench Rest Rifle unrestricted and Heavy Varmint. Wichita Bench Rest Rifle Club, c/o Henry W. Barton, 1841 S. Chautauqua, Wichita, Kansas 67211.

ANNOUNCEMENT

To members of NBRSA Eastern Region

This year the Eastern Region elects a Director and two Deputy Directors. As Director, I have appointed the following nominating committee for the Region.

Robert Hart, Chairman, 332 Montgomery St., Nescopeck, Pa.

Omar Rinehart, R. D. #3, Salem, Ohio.

M. H. "Mike" Walker, R. D. 1, Warren Rd., Mohawk, N. Y.

We will have two election sites:— July 2 (evening of) at Council Cup Rifle Range, Wapwallopen, Penna. for election of Director and Deputy Director for the Atlantic Seaboard Division, and July 16th (evening of) at Reed's Run Rifle Range, Augusta, Ohio for election of Deputy Director for the Great Lakes Division.

Dr. A. H. Garcelon

Director, NBRSA Eastern Region

To Whom It May Concern:

In order to clarify an indefinite situation and to establish borders for the election of Deputy Directors of the Eastern Region, I am assuming that the Director has the prerogative of establishing boundaries for the two subdivisions.

Therefore, to equalize and give better balance to the two subdivisions, I will establish the Atlantic Division as those States lying East of the western borders of New York, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia and Florida. Gerald Arnold is the present Deputy Director for this Region.

The Great Lakes Division shall consist of the States other than those named above that are in the Eastern Region.

I am notifying the Nominating Committee particularly of this decision.

A. H. Garcelon, D.D.S.

Director, Eastern Region

National Bench Rest Association

Kansas City, Kansas: May 21—4 PM, Heavy Varmint; June 4—4 PM, Bench Rest Rifle, unrestricted; Sept. 24—4 PM, Heavy Varmint; Oct. 22—4 PM, Bench Rest Rifle, unrestricted. Mill Creek Rifle Club, Inc., c/o L. F. Carden, 5022 Waverly, Kansas City, Kans. 66104.

NORTH CENTRAL REGION

Iowa Falls, Iowa: June 4 (Sporter class—night) and June 5 (Heavy and Light Varmint—9 AM). July 23 (Heavy and Light Varmint—night) and July 24 (Sporter class—9 AM). Iowa Falls Gun Club, c/o Lee R. Boddy, Sec'y, Iowa Falls, Iowa.

Buffalo, Wyoming: July 9 & 10, registered Varmint and Sporter class matches. Aug. 28, unregistered Sporter match. Buffalo Outdoor Rifle Club, C. C. Hankins, Sec'y, P. O. Box 151, Buffalo, Wyo. 82834.

PRECISION SHOOTING

MISSISSIPPI VALLEY REGION

St. Louis, Missouri: May 14, Heavy Varmint 5 P. M.—15, Light Varmint and Sporter 10 A. M. May 29, Hunting Rifle 11 A. M. Mississippi Valley Regional Championships; June 11, Unrestricted bench rest rifle 9 A. M., Light Varmint 4 P. M.—12th Heavy Varmint 9 A. M., Sporter 2 P. M. July 23, Unrestricted bench rest rifle 4 P. M.—24th, Light Varmint and Sporter 10 A. M. August 13, Heavy Varmint 5 P. M.—14th, Light Varmint and Sporter 10 A. M. Bench Rest Rifle Club of St. Louis, H. J. Vandiver, Sec'y, 12121 Rosedon, Bridgeton, Missouri 63042.

NORTHWEST REGION

Seattle, Washington: May 7, 10 AM, Hunter Rifle, and May 8, 9 AM, Heavy and Light Varmint classes. June 12, 9 AM, Bench Rest Rifle Re. and Un-Re. July 31, 9 AM, Heavy and Light Varmint classes. Aug. 14, 9 AM, Bench Rest Rifle, Re. and Un-Re. Sept. 17, 9 AM, Hunter Rifle and NBRSA Sporter class. Puget Sound Bench Rest Rifle Club, Inc., c/o John B. Sparrow, Rt. 1, Box 769, Auburn, Wash. 98002.

SOUTHWEST REGION

Yreka, California: May 28 and 29, Memorial Day Week-end Match. September 3 and 4, Fifth Annual West Coast Championship. At each match, Bench Rest Rifle unrestricted and restricted, Light and Heavy Varmint classes will be fired. Yreka Rifle Club, c/o Ray E. Jones, 508 Knapp St., Yreka, California.

THE BEGINNER GOES TO AN INDOOR-OUTDOOR MATCH

As I've said before, I'm a warm weather shooter, so I've stayed away from the winter shoots at Fasset. But what are you going to do?—the weather starts to warm up a bit, and if I'm not going to stay in all the time, I guess I have to go shoot. The 20th of March was pretty nice—just a bit wet, and we decided to head south. I went to get my gear ready.

"Where's my front rest? Where are my sandbags?" I asked Stan. "Janice has them," came the reply. Seems like our niece has been attending the winter shoots with Stan and seeing as I wasn't using my equipment, — well . . . Nobody's using my rifle though! I hid the bolt!

The weather made me decide to try out my new camera, so while I took my gun, I decided I'd shoot pictures instead of bullets. We got to Fasset and I didn't even take my gun out of the car. Besides—I didn't have any equipment to go with it!

A couple of the fellows were targeting in and Stan shot a few rounds. I watched and started to notice a peculiar itching sensation in my left forefinger. It kept curling a bit, too. When I explained it to Stan, he and Norm Fahr laughed about it. How are you going to fight it? I had to shoot.

The bench set-up for the winter shoots is interesting. It makes an indoor-outdoor match. Four makeshift benches are set up in the clubhouse kitchen, facing the big sliding windows. You open a window, stick

your gun barrel through and shoot! A hundred yards away is a target frame holding 20 target strips of 3 targets each. The lowest is the sighter, the other two for record. The middle one of the first target serves as the warm-up, rather than a record, giving you five record targets in three trips to the bench. There is no specific time limit. You may get chilly—but not seriously cold. Unless you volunteer for target detail, you're not out in the weather.

I do have one objection though. I think Fasset is prejudiced against left-handed shooters in the winter matches. Of the four benches, a lefty can only use three. If you try to use No. 2 bench you'd have to sit on the kitchen range! At that, it might be warmer!

I settled down to shoot—but something strange had taken place. My Lee dot was gone and in its place was a coarse cross hair that covered the black of the sighter square at 100 yds. On the right hand wire a little man was sitting. 'Course if you put the vertical wire to the left of the sighter box, the little man would just peek out to the right of the left hand edge. Mmmm.

As I understand it, the back scope mount broke and in the process of being replaced, the scope rolled sweetly onto the cement floor from the top of the workbench. No more Lee dot! My favorite fix-it man is no longer in my good graces. However, he promises me a new scope and that one repaired. Right now it makes for a bit more challenging shooting than I like!

Needless to say I didn't do too well, but I did get a few lessons in how things were done. Stan added insult to injury by winning one match with a .174. I think he was trying to give Lynn Hunt a bit of competition. That old pro was in a class by himself with an aggregate of .304. Doc Clover did his best to catch him with a .416 aggregate. There were the usual good groups, and the bloopers, but there was a lot of fun.

The results of the first four matches at Fasset give a bit of proof:

Standing	Aggregate	No. of Matches Competed in
Glover	.449	4
Hunt	.520	2
Arnold	.521	4
Stehle	.537	4
Andrews	.556	3
Blensinger	.562	3
Kempfer	.587	2
Fahr	.606	4
Kintz	.609	2
Bassett	.635	3
D. Hall	.638	3
R. Hall	.696	3
S. Streeter	.744	2
McMillen	.891	3
Janice Streeter	1.045	3

The match of March 20th will of course change that, with the three leading shooters having these scores for the day.

Standing	1	2	3	4	5	Agg.
Lynn Hunt	.354	.295	.312	.178	.380	.304
Doc Glover	.532	.341	.424	.541	.294	.416
Blensinger	.562	.332	.528	.326	.800	.510



Jerry Arnold shooting out the club-house window in the Fasset indoor-outdoor shoot.

The better weather brought Ted and Arlene Boughton out of hibernation, too. Spring's a comin'! Pretty soon the shoots will start in earnest and the wailing walls will again be covered with targets and the bull sessions will explain how they were done.

The winter shoots have their place. Guns and ammo are tested out in relaxed conditions, and the results give a promise of some interesting competition coming up.

Oh, yes, I'd like to ask something. Stan has been sitting at the kitchen table filling 2 new sand bags for yours truly. I just heard a strange sound. It seems the funnel slipped. Did you ever have aquarium gravel in your butter and sugar?

—Jean R. Streeter

TEXAS BENCH MATCH

A group of Permian Rifle and Pistol Club members from Midland, Texas, invaded Abilene, where the West Texas Sportsman's Club held Heavy and Light Varmint match in March. R. J. "Bob" Maberry, a Midland gunsmith and writer for an outdoor column in a local newspaper, was the aggregate winner in both classes with a 10½ pound rifle he has recently built. The rifle is .224 cal. and chambered for a wildcat cartridge of Maberry's design which he calls a "Bobcat."

In the Light Varmint matches LeRoy Butler, Abilene was second and Jimmy Durand, Midland was third. In the Heavy Varmint class matches Abilene shooters John Richardson, George Smith and J. C. Roberts ranked second through fourth, Durand, Midland, was sixth.

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"SNOW BALL LEAGUE" BENCH MATCHES

The second shoot of the SS&D Snow Ball League for 1966 was held on Sunday P. M. February 27th. It was sunny and mild with over a foot of snow on the ground. Mild wind and mirage gave the 28 shooters just enough conditions to make things interesting.

Winners of merit awards (groups under .300 MOA) were: M. Zisa .268, M. Hollister .275, Ed Shilen .280, J. Kohler .285, P. Webb .299.

Ed Shilen won the 100 yard aggregate with .345 and F. Tirrell the 200 yard aggregate with .396 MOA.

Grand aggregate winners were: Group measurement—F. Tirrell .423, J. Kohler .438, Ed Shilen .447, M. Zisa .464 and A. Cornell .485. For score—F. Tirrell 287, A. Cornell 287, Doug Hall 285, M. Hollister 285, Ed Shilen 284.

For the third match on March 12th there was mild wind and fresh snow. Merit award winners were A. Rosenfield .208, J. Dewey .265, R. Tonnesen .294 and J. Gilbert .289 MOA.

M. Hollister won the 100 yard aggregate with .273 and Ed Shilen the 200 yard aggregate with .404 MOA.

Grand aggregate winners: group—M. Hollister .355, A. Rosenfield .371, Ed Shilen .372, J. Dewey .374 and J. Kohler .383 MOA. Score—Doug Hall 295, Ed Shilen 291, P. Webb 291, M. Hollister 290 and A. Rosenfield 287.

Art Cornell

FIRST BENCH MATCH AT GREENVILLE, MICHIGAN

The Flat River Conservation Club, Bench Rest Division, a first year affiliate of the NBRSA, is holding its inaugural Bench Rest Rifle class shoot on its range near Greenville, Michigan on May 15th. Shooting at 200 yards will start at 10 A. M. Greenville is northeast of and not far from Grand Rapids. Further information about the match may be obtained from either John Rupert or Stuart L. Raymor, both R. R. 2, Fenwick, Mich.

Visits to state recreation areas in the 50 states during 1964 totaled 403 million—more than double the nation's population.

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—John Wanamaker

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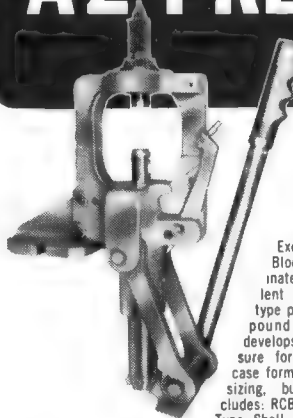
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PRECISION SHOOTING

AUSTRALIAN NATIONAL AND STATE BENCHREST CHAMPIONSHIPS

The first National and State Benchrest Championships in Australia were held during the month of November 1965, on a postal basis. The competition was arranged and sanctioned by the National Sporting Shooters Association of Australia. All shooting took place on S. S. A. A. ranges under the supervision of S. S. A. A. Range Officers. Each State conducted their own State Championships, and those States having Country Branches allowed their Branches to compete by post. The targets of the first three place-getters in each State, in each class, were then sent to Sydney, where they were measured, and from these the National Champions were selected.

The competition was for three classes: Open Benchrest, very similar to the Benchrest Rifle class of our U. S. NBRSA; Varmint Rifle, any caliber, any sight, not to exceed 12 power, weight of rifle together with optical sight not to exceed 14 pounds; Sporting Rifle, same as Varmint Rifle except that weight not exceed 10 pounds. (The .22 center-fires are used for much of the medium size game shooting in Australia which explains permitting the small caliber in the Sporting Rifle class—Ed.)

The aggregate course of fire for Open Benchrest class was two 10-shot groups at 100 yards and two 10-shot groups at 200 yards. For both Varmint and Sporting Rifle classes it was two 5-shot groups at 100 yards and two 5-shot groups at 200 yards.

The Open Benchrest class National Champion was Hugh McKenna from Melbourne, Victoria, with an aggregate of .2953 M. O. S. He used a custom built rifle having a worked over F. N. benchrest action and a heavy, slightly tapered Anschütz barrel, chambered for the .222 cartridge. Total weight of the rifle was 14 pounds. His scope was made up from bits and pieces of a Bushnell scope and a spotting scope. Work on the rifle and scope was done by McKenna himself with the assistance of Melbourne gunsmith Jack Miller. McKenna's load was composed of Remington cases, CCI primers, 4740 powder and 53 grain Sierra hollow point bullets that had been modified by putting them through a special die, which altered slightly both the diameter and shape, which includes a short shoulder.

Runner-up in the Open Benchrest class was W. Marden, a Sydney gunsmith, with an aggregate of .62 M. O. A. His rifle used an F. N. benchrest single shot action with a Douglas Premium Grade barrel, Canjar double set trigger, chambered for the .219 Donaldson Wasp cartridge, weight approximately 20 pounds. His scope comprised parts of a Bushnell spotting scope with a Japanese 6 x 3 eye piece, mounted in Unertl 1-inch micrometer mounts. He used cases formed from Norma 30/30 brass, CCI primers, 53 grain Sierra hollow point bullets and 27 grains of 655 ball powder.

Turn page

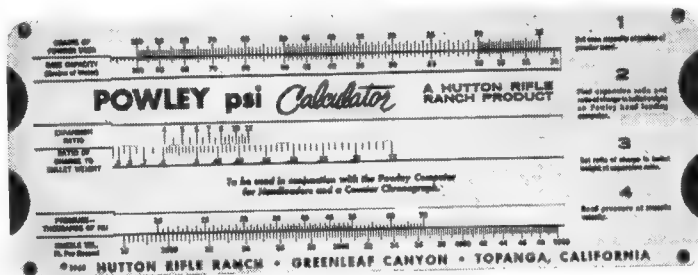
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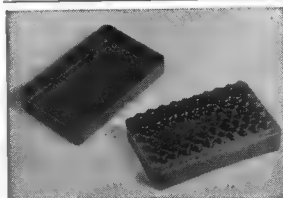
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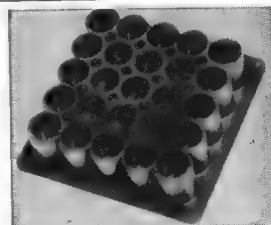
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Third place P. Nesbitt, Crookwell, N. S. W., with aggregate of .705 M. O. A., did not supply equipment information.

K. Tyack, N. S. W., won the Varmint class Championship with an aggregate average of .3918 M. O. A.; the Sporting Rifle class Championship with aggregate of .5712 M. O. A.; and the three-class grand aggregate with .5676 M. O. A. He apparently shot the same rifle and loads for both Var-

mint and Sporting Rifle classes, using a 6 power Bushnell scope for the Sporting Rifle matches and a 10 power Lyman scope in Varmint class. The rifle was a Sako in .222 Magnum cal. weighing 8¾ pounds. Loads were Sako cases, Remington primers, 53 grain Sierra hollow point bullets, 25.3 grains 4740 powder.

Runner-up in Varmint class was Mrs. R. Nesbitt, N. S. W., with aggregate of .5043 M. O. A. (no equipment information supplied).

Runner-up in Sporting Rifle class was R. Bowring, Queensland, with aggregate of .6308 M. O. A. He used a custom rifle in .222 cal. made up from a Sako single shot action, barrel made by the Sprinter Arms Co. of South Australia, with a 3x9X Leupold variable scope set at 6 power, weight 9 lbs. 14 oz. Loads were Sako cases, Remington primers, 53 grain Hornady hollow point bullets, 21 grains 4740 powder.

R. Starkey, N. S. W., was third in both the Varmint class (.5787 M. O. A.) and Sporting Rifle (.6616 M. O. A.) classes. He used the same equipment for both classes. His rifle was a .222 Sako heavy barrel with 6 powder Bushnell scope. Load was Norma cases, Remington primers, 53 grain Sierra hollow point bullets and 20.5 grains 4740 powder.

It is stated that the present hope is that the 1966 National Benchrest Championships may be organized as a shoulder-to-shoulder match at Sydney, with the State Champions competing for National titles.

P. H. T.

California Hunter Rifle

Chuey and Nick were ready with a few of their own. Don donated an award plaque, to be presented to the first shooter to score a possible 50 points on any target during the match. As it turned out we will have the 50 possible plaque available at our next shoot because several came close, but did not make it.

"We are proud indeed of the presence at our first Match of Doggie Kline, recently elected president of the Calif. Rifle & Pistol Assn., as well as Keith Gaffaney, executive secretary of same.

"The many valuable (donated) merchandise prizes in the drawing, held following the Match, were a great asset to its success. Our deepest appreciation goes to the San Gabriel Valley Gun Club and their recently elected president, George Kelly, (and donors of the merchandise prizes)."

Tom & Jerry

LATE AIRMAIL NEWS FROM JOHN SWEANY: "Quite a day yesterday (April 17th) for several reasons. The FIRST HUNTER RIFLE MATCH for the San Leandro (Calif.) OPTIMIST CLUB. Saturday was fine, sunny and warm with no wind, as it had been for some days. But the high FOG came rolling in Saturday

night and with it the WIND Sunday morning. It was fairly steady and directional at about an average 30 MPH and quite chilly and disagreeable.

"The club had listed as a SPECIAL match, the legal Benchrest Heavy Varmint rifle. Ed Suchan, of World Record fame, made the very FIRST 250 score possible—ALL tens on that 50 meter ISU target at ONE HUNDRED YARDS! Beautiful targets with never a shot to doubt as being a ten.

"Only a little over thirty shooters showed up, but the significant fact is that out of that number, about twenty were NEW shooters, having been run out of the San Leandro woods by Bob and Leah Lowthian who put on the shoot. The NBRSA picked up one new member with several more likely to follow—they want to see their names in P. S. Also we had a pleasant surprise by the attendance of Major Allen Kempe, who flew out of the icy bounds of northern Michigan to see our match.

"Of special note—Leah Lowthian and Bonnie Pullens, two of our top shooting Bunnies, did ALL the Stat work; squadding, collecting, and placing the winners. Man, that's all you need, a couple of good looking Bunnies at a match to keep it rolling." (High scores etc. will be published after a results bulletin has been received—Ed.)

Re: **RULES, ETC.** "We had a fine talk with the Major (Kempe). We exchanged a lot of ideas and discussed a lot of things. I guess the main result was the recognition that we should stay as closely as possible to the set of rules suggested and that when different areas find different conditions existing, they should include THEIR idea for that particular condition. When this is done in MANY different areas, then a National set of rules can be boiled out of the stew. He and I were both in perfect harmony that the NBRSA would be a proper organization at this time to start to do this. And we both agreed that there should be NO reason why the NRA should not do the same when they see fit."

HUNTER RIFLE SCORES

The score bulletin for the Optimist Club Hunter Rifle match at San Leandro, Calif. April 17th, received just at closing time. Scores of high ranking shooters follow:

Heavy Varmint Rifle class—Ed Suchan 250 (possible score), George Gonsalves 235, Ben Underwood 233 (7 competitors).

Hunter Class "A" (6mm thru 270)—C. Stiltner 238, Dick Gifford 230, Bonnie Pullens 228, Harvey Miller 227 (18 comp.). All shot 6mm cal. rifles.

Hunter Class "B" (7mm up)—Antonio Sanches, 7mm, 218, Glenn Sheets, 30/06, 214, H. L. Miller, 30/338, 209 (6 comp.).

Iron Sight Class — Jerry Pullens, 6mm/250, 207, Len Shepherd, 30/06, 198 (4 comp.).



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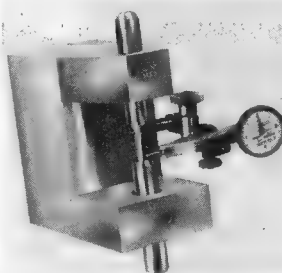
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THE BULLET JACKET SITUATION

Both Sierra and Speer have announced that they are discontinuing supplying bullet jackets for an indefinite period. This is effective as of April 1st. Reason given is that copper is in short supply, largely due to increased use for consumer goods and less foreign copper available, and they are conserving their bullet metal supplies for making their bullets. They do not anticipate there will be any shortage of bullets and Speer advises that they feel the supply situation may ease early in 1967.

Prices of copper have increased (what hasn't) and this no doubt will be reflected in prices for bullets and jackets. It may be reflected in jackets still available in the stocks of jobbers and dealers.

We have not so far heard of any imminent shortages of other handloading components. We understand the price of lead has increased quite sharply and that may become more or less true for other components.

P. H. T.

NEW SPEER LOADING MANUAL

SPEER announces that their new #7 loading manual is in the hands of the printers and should be ready for distribution late in May. It will contain all new handloading articles and data on new cartridges introduced since 1963. Price remains at \$2.95.

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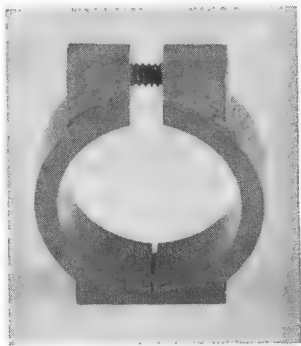
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fire for the military rifle should be developed along the lines of more realistic combat conditions. To my mind this not only puts the combat rifle to its proper use but it also produces a greater spectator interest and greater spectator interest is one of the things the shooting game is badly in need of. When I was resident in Shanghai way back in the early 1930s, I fired the pistol on a range that was equipped with all kinds of moving targets. At the command of fire, the shooter opened a door and immediately electrically operated and variously timed targets popped out from all over the place. It was your job to place one shot in each one before it disappeared. This was one of the few ranges I had ever known that developed real spectator interest. It seems to me that modern automatic military weapons almost require the DCM to redesign their courses of fire. This should in no way affect our bolt action precision shooters. There is a place for both types of fire at our national and other important matches.

Mr. Karl Kastner, secretary of the New Jersey State Association, told us how the shooters of New Jersey had established their own state association range. Mr. Kastner neglected to tell us that he was the driving force behind this development and that he personally put his shoulder to most of the biggest boulders on that property when the range was being constructed. We need more Mr. Kastners in some of our other states.

Mr. Gaffaney, secretary-treasurer of the California State Association, spoke of the development of his association into the biggest and most active organization of its kind. This association work in California is tremendous and should be studied by all serious shooters.

Mr. Fauntleroy, Director of the NRA Membership Division, led the meeting. It is my suggestion that anyone interested in the development of state associations should contact him and get a complete transcript of the meeting including the three talks mentioned above. I intend to do so despite the fact I am not now an active member of our local Minnesota association. But active or not, we can all try to develop the ground swell that results in a meaningful association.

Turn to page 18

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—U. S. Rep. Walter S. Baring, Nevada

NOTES FROM THE 1966 NRA CONVENTION

By Fred W. Hallberg

It was my good fortune to be in Chicago the opening weekend of the NRA convention. That permitted me to spend Saturday evening and Sunday afternoon at the Edgewater Beach Hotel. Of course, these were the worst possible days for such an activity because the crowds made it difficult to talk to the people you wanted to see. The latter part of the week would have been preferable.

My short stay permitted me to attend one meeting only—the meeting of NRA State Associations. To me, this was a most important meeting because I feel strongly that state associations are a future key to NRA development. It was particularly pleasing for me to hear speakers talking for and about subjects that I have been advocating for years, namely that state associations must broaden their base so as to bring in all shooting activities rather than depend entirely on the competitive rifle and pistol side of the game. Competitive shooters can still have their own little department within the state organization but if the organization is to grow and become a power in the state the competitive shooter should not run it. I know this is controversial, and to the competitive shooter heresy, but I am prepared to defend my views at any time and at any place.

Col. M. R. Preble, USA (Director of Civilian Marksmanship) spoke of broadening the base of state teams so as to include more newcomers. This could be a boost to state associations because it gives them something to sell and it also tends to eliminate one person rule. He also implied that courses of

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TECH TOPIC

By E. M. Yard

LOAD EFFICIENCY

Whenever talk turns to cartridges and to handloading, someone mentions efficiency after a while. Sometimes one case is said to be more efficient than another. Other times a cartridge gives more feet per second velocity per grain of powder than a (usually) bigger one, same bullet of course. Details vary, but the focus is on getting something for nothing, or the hope of doing so.

Of course you'll get nothing for free, but gun efficiency does vary. But first we've got to make valid comparisons. Because the energy of bullets goes up as the square of velocity, we must look at muzzle energy in foot pounds for each grain of powder. Divide M. E. of each load by powder weight in grains. The bigger answer shows the more efficient one, but most like cartridges are close.

Small capacity cartridge cases are inherently more efficient. The volume of gas from their light powder charges expand many times more than heavier loads can. They thus deliver more of their energy to the bullet. The .22 Hornet can give a 45 grain bullet 58 Ft. Lbs. per grain of its 11.5 grain charge, the .222 Remington 49.5 Ft. Lbs. from 22.5 grs., and a .22-250 yields as little as 40.0 Ft. Lbs. at 39 gr. of powder.

Double base powders such as the obsolete HiVel 2 contain more energy per grain of their weight and give more bullet energy for the same charges, should not be compared directly. Different powders vary in their heat of combustion (energy content), making comparison difficult except between similar types, as IMR vs another IMR.

A factor generally overlooked in the efficiency of handloads is the degree to which the powder is consumed. Occasionally reloaders note unburned powder in their bores, but regard this as rare. Even with the load of 18.0 grains of 2400 and a 250 grain lead alloy bullet that leaves the bore of .44 Spl. revolvers littered with partly burned granules, few realize that less than 1/2 the charge probably burns while the bullet is in the barrel. This is an extreme instance, but with many of our best loads some powder is still unconsumed when the bullet leaves the gun. These will give fewer Ft. Lbs. per grain of powder charged. The slower the powder the more likely some is wasted. Though efficiency suffers, we get performance.

Don't take efficiency too seriously. Loads should be judged by their ballistics. The efficient loads are most often high pressure ones as well. It is better to spend a few cents a box of reloads for powder than to push a cartridge beyond a reasonable limit, seeking efficiency.

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—Lyndon B. Johnson

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3. Ithica has two new double shotguns, over-and-under and side-by-side, made in Japan. They are of very superior quality and are offered at moderate prices. One will make no mistake purchasing them.

4. Mossberg is offering a new moderate priced centerfire bolt action rifle in .308 and .243 calibers. This is an interesting arm with many new and desirable features.

5. The Johnson conversion of the carbine to a .223 caliber is, to my mind, the outstanding rifle of its class. This is really something I can recommend—so much so, that I probably will end up with one myself. The cartridge is not the military version of the .223 but rather a necked down .30 caliber carbine cartridge. That was the nicest little gun I have seen in a long time.

6. Despite opinions to the contrary by many old line shooters, I think the new top grade Winchester Model 70 rifle is much superior to the old. Those long break-in periods that we accepted as necessary in the past are now eliminated. That does not mean we do not have to tune up the rifle relative to the stock and its bedding. Tuning is a part of the rifle game that we probably never will get rid of.

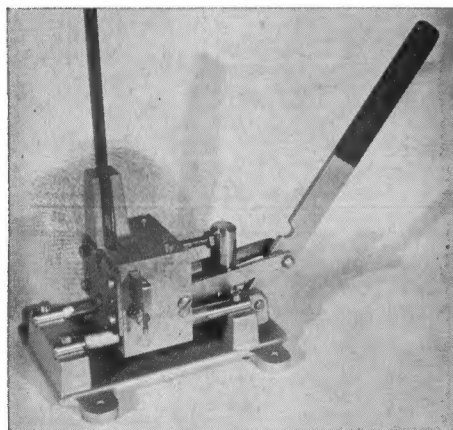
7. Federal Cartridges idea of identifying each shotgun gauge with a separate color is an important and useful development. When I go out with "mixed" company, that feature alone makes me use Federal. They also offered some simple yet useful literature concerning their products that would not be amiss in any shooter's file.

8. The Navy offered a nice little write-up in mimeographed form entitled "Trigger Refinement for the Model 1911 and 1911A1 ACP pistol." They also demonstrated that little sleeve which they had developed to facilitate conversion of the .30/06 M1 rifle to .308 caliber. You simply slipped the sleeve over the neck of a .308 cartridge and then fired the cartridge in the rifle. That permanently located the sleeve in the chamber and shortened it so that from that moment on your .30/06 had become a .308. Both these developments should be written up in detail and published.

9. And last but not least, I must mention that little .22 caliber RF Mannlicher rifle offered by Stoeger Arms Co. I always regretted not getting a Winchester 52 Sporter when that rifle was available. The Mannlicher may be expensive but it can substitute for that old model 52 and, to me, is a worthy addition to the fine .22 cal. rifles offered by Ruger and Browning.

While on the subway on my way to the convention, I met a young chap also headed in that direction. He told me he had been unable to find a rifle range in the vicinity of Chicago. I hope he had the good fortune to stop at the booth of the Waukegan Shoot-O-Rama. That range, located at 1015 Belvidere Road, Waukegan, Ill. is scheduled to open in May 1966 under the direction of Mr. Louis Chianelli. It will be one of the very few commercial ranges available to the general public in the United States.

A PRECISION CARTRIDGE PRIMING TOOL WITH "MECHANICAL" PRIMER FEED



A rapid, efficient tool that will automatically insert primers with great accuracy in both rifle and pistol cases.

Each shell holder will handle two sizes of case heads.

Priced at \$28.80 P. P. which includes shell holder, two priming rods (large and small), magazine tube, loading tube, sorting tray, instructions.

Standard shell holder for .38 Spl. and .30-06. Extra shell holders (two cal.) for \$2.00.

This cartridge priming tool allows you to clean and to inspect the all important primer pocket YET SPEND NO MORE TIME AT THE LOADING BENCH.

THE GUN CLINIC

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BENCH REST AND VARMINT SHOOTERS

"My Special" Sierra .30 caliber Jackets (described in August 1961 issue) available in 1.050", 1.150" & 1.250" lengths @ \$16.00 per M plus postage for 7 lbs.

6m/m Sierra Jackets in .827" & .937" @ \$12.50 per M plus postage for 3½ and 4½ lbs.

22 caliber Sierra Jackets in .705" @ \$10.00 per M plus postage for 2½ lbs.

Bullet jackets to old customers only as long as present stocks last.

3/16", .240" & 5/16" lead wire in 25 lb. spools @ \$9.00 FOB Rochester

KENRU Precision Soft Swaged 22 caliber Bullets .38 cal. & .44 cal. Half-Jackets @ \$11.00 & \$12.50 per M.

Please enclose payment with all orders, overpayment promptly refunded. Also send self-addressed envelope, or return postage, with all inquiries. (member NRA & NBRSA)

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166 Normandy Ave.
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NRA Convention

My short stay at the convention permitted only a glance at the individual exhibits. However, some of them impressed themselves sufficiently to be retained in my mind after three long weeks of intense activity. I would comment on some of them as follows:

1. The new Browning highpower lever action rifle is, despite criticism by some well known writers, the finest in its class on the market today. It is just chock full of modern concepts. I am speaking from the point of view of a precision shooter and not that of a hunter although I can see nothing in this gun that would disqualify it as a hunting arm. It is the first of the modern lever action rifles that maintains an excellent trigger pull even though the trigger mechanism is completely disengaged each time the lever is dropped. The forearm is fastened to an extension anchored in the receiver and does not hang from the barrel. And it uses the kind of sharp pointed ammunition that is not practical in a tubular magazine rifle.

2. An old favorite, the Remington 40XB centerfire target rifle is now available in a repeating model for use in the National



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SHOOTING & HUNTING SUPPLIES
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REAMERS: Wright Gun & Tool 30-338 Win. rough and finish, also 224 throater. L. E. Wilson Special 308 Win. finish. All new, unused; will sell separately or all together; make offer. Code DH, Room 4034, Navy Annex, Washington, D. C. 20380.

LAST AVAILABLE "SHILEN" SS&D HEAVY VARMINT BENCH RIFLE, CAL. 308. Regular laminated stock, Canjar trigger, \$415.00. **WINCHESTER Mod. 70 Target, cal. .300 H&H** with Olympic sights, serial 437191, practically unfired as new, \$169.50. Custom 30/06 Free Rifle, Enfield action, Douglas barrel, Laminated Thumb-hole stock, Anschütz sights and fittings, \$275.00. **SHOOTERS SERVICE & DEWEY, INC.,** Clinton Corners, New York.

WANTED: Unbroken run of Precision Shooting, preferably Vol. 1, No. 1 to Vol. 10, No. 12. State condition, price. John E. Brindle, 2819 Lakeview Avenue, Regina, Saskatchewan, Canada.

SNOW BALL LEAGUE MATCHES

The fourth of the 1966 SS&D Snow Ball League bench matches at Millerton, New York was fired March 27th. The day was cold and windy but despite this 20 shooters were present.

P. Webb won the 100 yard aggregate with .624, the 200 yard aggregate with .703, the grand aggregate with .663 and was a close second in the score aggregate.

Following Webb in the M. O. A. grand aggregate were Ed Shilen .904, G. Stannard .908, W. Purcell .922, and M. Marino .982. The score aggregates went to G. Stannard 275, P. Webb 273, M. Marino 263, J. Quercio 263, and R. Wade 260.

At a make-up shoot on April 3rd, there was light wind and mirage and 13 shooters present. P. Webb won the 100 yard aggregate with .435 and Ed Shilen the 200 yard aggregate with .648 M. O. A.

For the M. O. A. grand aggregate it was Ed Shilen .491, P. Webb .580, A. Zisa .587, J. Dewey .629, and R. Tonnesen .680. Score aggregate, Doug Hall 287, P. Webb 282, R. Tonnesen 282, Ed Shilen 279, and R. Wade 279.

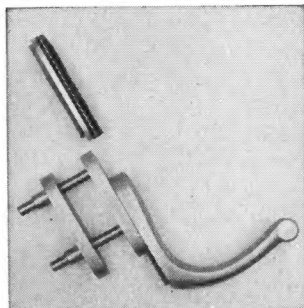
The sixth shoot on April 17th had 16 shooters and a tricky little wind present. J. Dewey won the 100 yard aggregate with .435 and Ed Shilen the 200 yard aggregate with .485 M. O. A.

MAY 1966

FOR THE SHOOTER BY A SHOOTER

BSA

MARTINI-INTERNATIONAL



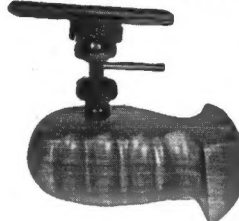
Freeland "61" International Butt Plate Complete \$45.00

FREELAND Olympic All Aluminum Butt Plate . . . \$13.50
FREELAND Base Plate with Free Rifle Hook, Oly. . . . \$20.00
FREELAND Butt Plate with Rubber Pad, Olympic . . . \$16.00
FREELAND Free Rifle Hook Only, Olympic . . . \$11.50
Butt Plate Spacer 1/2" or 3/4" \$7.00

REGAL BIPOD, mention scope . . . \$23.50
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BSA MARK III OLY. PALM REST . . . \$17.50
Freeland SWISS TYPE PALM REST . . . \$20.50
FREELAND PALM REST, ball type 52D-OLY. PALM REST . . . \$16.50
FREELAND ALL ANGLE TRIPOD, in green or gray, mention scope . . . \$16.75
Bipod, GALLERY SPEC. SCOPE STAND . . . \$19.40
FREELAND BIPOD, mention scope . . . \$18.75
FREELAND Carwindow attachment . . . \$8.50
Freeland Superior Front Sight . . . \$16.00
FREELAND TUBE rear sight . . . \$42.50
Freeland Fore End Stops 52M, 52T, 75, 513, 40X and 521T . . . \$3.50
"AR" SHOOTING MAT . . . \$27.00
FREELAND 52-D FORE-END STOP . . . \$4.50
Freeland Sling Keeper . . . \$1.25
Kneeling Pad . . . \$5.25
Freeland Pistol Box Adapter . . . \$5.25
ZOOM TRIPOD #ZT . . . \$17.75

Mark III BSA .22 Target Rifle—
HEAVY WEIGHT 14 1/2# or LIGHTWEIGHT 12# BSA For Right Hand or Left Hand Shooter
It Is Supreme — It Is Accurate

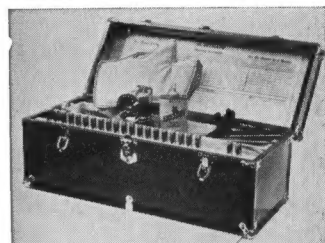
MARK III Less sights . . . \$210.00
MARK III with 1-8 Min Parker-Hale sights . . . \$245.00
MARK III with Freeland sights . . . \$280.00



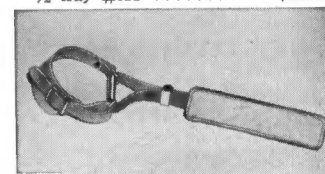
Swiss Type Palm Rest



All Angle Tripod



Freeland 30 Caliber Kit . . . \$15.50
48 3/4" Rifle Trunk A6T . . . \$31.25
1/4 Opening small bore kit . . . \$22.00
Freeland 31" Accessory Kit, 1/2 tray #A3 . . . \$19.95



Mid-Century Cuff, Comb. . . \$8.50

Freeland POSITION-MASTER . . . \$6.00
ZLC ZOOM scope leather case . . . \$6.25
Freeland Recoil Spring . . . \$4.00
ZIPPER CASE, for most scopes . . . \$5.25
DeLuxe Cuff & Hook . . . \$4.25
61-S Olympic 1 1/4" cuff-sling . . . \$6.00
Freeland tapered cuff combination #61A . . . \$6.75
Freeland AF55L Exceptional Leather RIFLE CASE . . . \$37.00
10-X Rifle Coat . . . \$22.00
ELEY AMMO SE22T, Per M . . . \$39.00
ELEY AMMO SE22M, Per M . . . \$26.00
 Check its win record

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3737 14th Ave.,

Dewey won the M. O. A. grand aggregate with .510, followed by Shilen .528, Doug Hall .685, A. Cornell .703, Marinko .703. Hall won the score aggregate with 286, Shilen had 282, Cornell 281, Marinko 277, and Hollister 278.

No one has in the last three shoots won a merit award. A merit award requires a group of .300 M. O. A. or smaller.

Art Cornell

NEWEST FROM NORMA

For distribution in the U. S. are NORMA Boxer (American) type primers. New NORMA catalog listing ammunition and components, powder information sheet and (for \$1.00) the latest Gun Bug Guide with Norma loading data, may be obtained from NORMA-PRECISION, South Lansing, New York.

The Gunsmith BLACK FINISHING UNIT

Made especially for the man who wants to do the best in firearm refining — for himself or for profit. This same process is used by manufacturers. Comes complete with tanks,

burners, supply of **PENTRATE** crystals, instructions and all equipment needed. Write for details.



HEATBATH CORPORATION
 Springfield 1, Massachusetts

How do Congressmen feel about getting letters?

Circle one. (five points)

- a. They are too busy to read mail.
- b. They want to know what people from home are thinking.
- c. They do not care what your opinions are.

(The answer is "b". They always welcome sincere letters from constituents.)

It is your duty, as a sportsman and citizen, to take an active interest in the bills introduced each year which affect the future of outdoor recreation in America. How much do you know about making your opinions count? Here is a quick test.

2. Name the Congressman from your district. (ten points)

(For answer, contact your town or county clerk)

3. Name the two U.S. Senators from your state. (ten points each)

(You can find out from your town or county clerk)

4. The preferred form of address when writing your Congressmen is: (ten points)

- a. "The Right Honorable _____"
- b. "Dear Senator _____" or "Dear Representative _____"
- c. "Dear Mr. _____"

(Most Congressmen aren't too concerned with formalities. "b" is perfectly acceptable.)

5. If I am interested in a bill introduced in the House, I should write to: (ten points)

- a. The Representative who introduced the bill.
- b. The chairman of the committee which will hear the bill.
- c. The Representative from my district.
(Write "c" first, then "a" and "b" if the situation warrants.)

6. When I write a letter expressing an opinion, I should: (five points)

- a. Quote what the "experts" are saying.
- b. Express my own reasons and beliefs.
- c. Send a petition with a lot of names.
(You are his constituent. The answer is "b".)

7. When I write a Congressman, I should: (five points)

- a. Tell him how important I am.
- b. Threaten him with my vote.
- c. State the name of any organization I represent and my title.
(The answer is "c".)

8. When I write a Congressman, I should: (ten points)

- a. Tell him what the Constitution means.
- b. Be polite, sincere and brief.
- c. Set him straight once and for all.
(Congressmen are familiar with what the Constitution means. "b" is the answer.)

9. When I write a Congressman, I should: (five points)

- a. Tell him I am a Democrat.
- b. Tell him I am a Republican.
- c. It is not necessary to state party affiliation.
("c". Leave parties out of it.)

10. Circle one. (five points)

- a. Congressmen are hardened to criticism.
- b. Congressmen have the same feelings as anyone.
- c. Congressmen ignore good or bad comments.
("b". Although too many people overlook this.)

11. About how many bills are introduced in Congress each session? (ten points)

- a. 3,000
- b. 5,000
- c. 15,000
("c". No Congressman can read that many bills. That's why you should call his attention to bills that are important to you.)

12. I should express my opinion on a bill: (ten points)

- a. Just before committee hearings.
- b. When the bill comes up for vote in Congress.
- c. When the bill goes to the President for signing.
(The committee recommendation usually decides the outcome of a bill. "a")

13. When a bill has been signed into law, I should: (five points)

- a. Write and thank my Congressman for any help he gave.
- b. Forget about the bill.
- c. Complain to my Congressman.
("a". Win, lose or draw, he'll remember your gratitude on "another day.")

**How to score yourself: Below 50 — Better brush up
50-60 — Fair • 60-70 — Good • 70-80 — Excellent
80-90 — Superior • 90 or above — Have you ever
thought of running for President?**

SHOOTING SPORTS ASSOCIATION, INC. / Riverside, Conn.